1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
Trade name: Phenyl mercuric acetate ≥ 98%, pure
Article number: 6626
CAS Number: 62-38-4
EC number: 200-532-5
Index number: 080-011-00-5

Registration number
A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

Application of the substance / the preparation
Laboratory chemical

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Carl Roth GmbH + Co.KG
Schoemperlenstraße 3-5
76185 Karlsruhe
Germany
Telefon: +49/(0)721 5606-0   Telefax: +49/(0)721 5606-149   e-mail: sicherheit@carlroth.de

Further information obtainable from: Department Health, Safety and Environment

1.4 Emergency telephone number:
Poison Centre Munich                         Telefon   +49/(0)89 19240

2 Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
Acute Tox. 3 H301 Toxic if swallowed.
STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Aquatic Acute 1 H400 Very toxic to aquatic life.
Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC
T; Toxic
R25-48/24/25: Toxic if swallowed. Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.

C; Corrosive
R34: Causes burns.

N; Dangerous for the environment
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

(Contd. on page 2)
2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS05  GHS06  GHS08  GHS09

Signal word Danger

Hazard statements
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.
H372 Causes damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P405 Store locked up.

Additional information:
-

2.3 Other hazards
All chemicals are potentially dangerous. They are therefore only be handled by specially trained personnel with the necessary care.

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

3.1 Chemical characterization: Substances

CAS No. Description
62-38-4 phenylmercury acetate

Identification number(s)
EC number: 200-532-5
Index Number: 080-011-00-5
Formula: C₈H₈HgO₂
Molar mass [g/mol]: 336,74
4 First aid measures

4.1 Description of first aid measures

**General information:**
Immediately remove any clothing soiled by the product.
Remove breathing equipment only after contaminated clothing have been completely removed.
First Aider: Pay attention to self-protection!

**After inhalation:**
Supply fresh air and to be sure call for a doctor.

**After skin contact:**
Immediately rinse with water.
Consult a doctor even without symptoms of poisoning.

**After eye contact:**
Rinse opened eye for 10 minutes under running water. Then consult a doctor.

**After swallowing:**
Rinse out mouth and drink a glass of water. Do not induce vomiting.
Call for a doctor immediately and show the container or label.

4.2 Most important symptoms and effects, both acute and delayed

**Systemic effects:**
Irritation and corrosion
After contact with the eyes
Eye damage
After swallowing:
irritations in the mouth, throat, oesophagus, gastrointestinal tract.
Nausea
Vomiting
gastric pain
bloody diarrhoea
Blood pressure drop
cardiac arrhythmia
Circulatory collapse
renal failure
After inhalation:
Dyspnoea
Coughing
Damage of lungs.
pneumonitis

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Firefighting measures

5.1 Extinguishing media

**Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents:
For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture
During heating or in case of fire poisonous gases or steams are produced.
In case of fire, the following can be released:
Mercury vapours.
Carbon monoxide and carbon dioxide

5.3 Advice for firefighters
Protective equipment:
Wear self-contained respiratory protective device.
Wear fully protective suit.
Additional information
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Prevent fire-fighting water from entering surface water or groundwater.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Avoid formation of dust.
Do not breathe dust.
Avoid contact with the eyes and skin.

6.2 Environmental precautions
Do not allow to enter sewers/ground water or penetrate the soil.
Keep contaminated washing water and dispose of appropriately.

6.3 Methods and material for containment and cleaning up
Pick up mechanically.
Dispose of the material collected according to regulations.
Dispose contaminated material as waste according to item 13.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

7.1 Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
Work only in fume cupboard.

Information about fire - and explosion protection:
No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles:
Store only in the original receptacle.
Unsuitable material for receptacle: aluminium.
Trade name: Phenyl mercuric acetate ≥ 98%, pure

Information about storage in one common storage facility:
Store away from foodstuffs.

Further information about storage conditions:
Keep container tightly sealed.
Store in the dark.
Store under lock and key and with access restricted to technical experts or their assistants only.

Recommended storage temperature: 15 - 25 °C

7.3 Specific end use(s)
No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical facilities:
No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: Not required.

Additional information:
The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Do not breathe dust.

Individual protection measures
Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Composite filter: Hg-P3 (colour code: red-white)

Protection of hands:

Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. of page 4)
Material of gloves
Nitrile, thickness: ≥ 0.11 mm
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material
Value for the permeation: Level ≥ 6
The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

As protection from splashes gloves made of the following materials are suitable:
Nitrile rubber, thickness: ≥ 0.11 mm
Value for the permeation: Level ≥ 6

Eye protection:

Tightly sealed goggles

Body protection:
Protective work clothing

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information
Appearance:
- Form: Powder
- Colour: Whitish
- Odour: Odourless
- Odour threshold: No information available.
- pH-value: No information available.

Change in condition
- Melting point/Melting range: 146-150 °C
- Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Product is not flammable.

Ignition temperature: No information available

Decomposition temperature: No information available

Self-igniting: No information available

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:
- Lower: No information available.
- Upper: No information available.

Oxidizing properties: No information available.

Vapour pressure at 35 °C: 0.000012 hPa

(Contd. on page 7)
**Trade name:** Phenyl mercuric acetate ≥ 98%, pure

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Bulk density at 20 °C</td>
<td>~800 kg/m³</td>
</tr>
<tr>
<td>Relative density</td>
<td>No Information available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water at 20 °C</td>
<td>2 g/l</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>0.71 log POW (exp. - 3rd parts MSDS)</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Dynamic: No information available. Kinematic: No information available.</td>
</tr>
</tbody>
</table>

9.2 Other information
No further relevant information available.

10 Stability and reactivity

10.1 Reactivity
See section 10.3

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:
No decomposition if used and stored according to specifications. Decomposes when exposed to light.

10.3 Possibility of hazardous reactions
Strong reaction possible with:
- Strong oxidants
- Strong acids
- Strong bases
Exothermic reaction with:
- aluminium

10.4 Conditions to avoid
Strong Heating. (decomposition)

10.5 Incompatible materials:
Aluminium

10.6 Hazardous decomposition products:
In case of fire: see item 5.

11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity:
LD/LC50 values relevant for classification:
- Oral LD50 41 mg/kg (rat) (RTECS)

Specific symptoms in biological assay:
No information available.

Primary irritant effect:
on the skin:
Caustic effect on skin and mucous membranes.
on the eye:
Strong caustic effect.

after inhalation:
Irritations in the respiratory tract, coughing, dyspnoea.

Sensitization:
No sensitizing effects known.

CMR effects:
Germ cell mutagenicity:
No information available.
Carcinogenicity:
No information available.
Reproductive toxicity:
No information available.

Aspiration hazard:
No aspiration toxicity classification.

Specific target organ toxicity - single exposure
The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ toxicity - repeated exposure
Causes damage to organs through prolonged or repeated exposure.

Additional toxicological information:
After contact with the eyes
Eye damage
After swallowing:
Irritations in the mouth, throat, oesophagus, gastrointestinal tract.
Nausea
Vomiting
Gastrointestinal complaints
Diarrhoea
Blood pressure drop
Cardiac arrhythmia
Renal failure
After inhalation:
Pneumonitis

Further information:
The product should be handled with the care usual when dealing with chemicals.

12 Ecological information

12.1 Toxicity

Aquatic toxicity:

Fish toxicity:

<table>
<thead>
<tr>
<th>LC50</th>
<th>Concentration</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>0.068 mg/l/48 h</td>
<td>Carassius auratus</td>
<td>(3rd party MSDS)</td>
</tr>
<tr>
<td>0.0090 mg/l/96 h</td>
<td>Onchorhynchus mykiss</td>
<td>(3rd party MSDS)</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability
No further relevant information available.

12.3 Bioaccumulative potential
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected (log POW ≤4).

12.4 Mobility in soil
No further relevant information available.
Ecotoxicological effects:

Remark:
Do not allow to enter waters, waste water, or soil!
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Must not reach sewage water or drainage ditch undiluted or unneutralized.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects
No further relevant information available.

13 Disposal considerations

Waste treatment methods

Recommendation
This material and its container must be disposed of as hazardous waste.
The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

Uncleaned packaging:

Recommendation:
Disposal according to official regulations.

14 Transport information

14.1 UN-Number
ADR, IMDG, IATA UN1674

14.2 UN proper shipping name
ADR 1674 PHENYLmercuric acetate, ENVIRONMENTALLY HAZARDOUS
IMDG PHENYLmercuric acetate, MARINE POLLUTANT
IATA PHENYLmercuric acetate

14.3 Transport hazard class(es)

ADR, IMDG

Class 6.1 Toxic substances.
Label 6.1
Trade name: Phenyl mercuric acetate ≥ 98%, pure

IATA

<table>
<thead>
<tr>
<th>Class</th>
<th>Label</th>
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<tr>
<td></td>
<td>6.1 Toxic substances.</td>
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<td></td>
<td>6.1</td>
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</table>

14.4 Packing group

ADR, IMDG, IATA II

14.5 Environmental hazards:

Environmentally hazardous substance, solid; Marine Pollutant

Marine pollutant: Yes (PP)

Special marking (ADR): Symbol (fish and tree)

14.6 Special precautions for user

Warning: Toxic substances.

Danger code (Kemler): 60

EMS Number: F-A,S-A

Segregation groups Heavy metals and their salts (including their organometallic compounds)

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ) 500 g

Transport category 2

Tunnel restriction code D/E

Remarks: Pestizid: 6.1, 75b, 2777, 60, 6.1

UN "Model Regulation": UN1674, PHENYLMERCURIC ACETATE, ENVIRONMENTALLY HAZARDOUS, 6.1, II

15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations:

Information about limitation of use:

In dealing with chemicals the national laws must be observed.

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

Breakdown regulations:

<table>
<thead>
<tr>
<th>Class</th>
<th>Share in %</th>
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</thead>
<tbody>
<tr>
<td>I</td>
<td>100.0</td>
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</table>

Waterhazard class:

Water hazard class 3 (Assessment by list): extremely hazardous for water.
15.2 Chemical safety assessment
A Chemical Safety Assessment has not been carried out.

16 Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing MSDS: Department: Health, Safety and Environment
Contact: Herr Dr. Hagel

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
PP: Severe Marine Pollutant
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
LD50*: Lethal Dose, 50 percent (Not relevant for classification)
LD50*: Lethal Concentration, 50 percent (Not relevant for classification)